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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,085	04/04/2001	Matthew Bunkley Trevathan	RSW920010072US1	3871

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EXAMINER

CHOI, WOO H

ART UNIT

PAPER NUMBER

2186

DATE MAILED: 07/17/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/826,085

Applicant(s)

TREVATHAN, MATTHEW  
BUNKLEY

Examiner

Woo H. Choi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3 – 7, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Gaither (US Patent No. 6,223,256).

3. With respect to claim 1, Gaither discloses a method for managing a cache (abstract), comprising the acts of:

analyzing information stored in a caching profile (col. 8, lines 41 – 47, program run-time behavior information is gathered and analyzed to assign cache class attributes); and

responsive to the act of analyzing, selecting a preferred caching algorithm from a plurality of caching algorithms (abstract, the analyzed information, or cache class attribute is used to select a replacement algorithm);

wherein the act of analyzing is performed by a predictive modeling engine (col. 8, lines 45 – 47, collection and analysis of information is done by operating system or software.

Abstract states “Class attributes may indicate a relative likelihood of future use.” These two teachings of Gaither read on the ‘predictive modeling engine’ limitation.).

3. With respect to claims 3 and 4, Gaither discloses a method for managing a cache, comprising the acts of:

updating a caching profile in response to arrival of a file (col. 8 lines 41 – 53, act of updating a caching profile in response to arrival of a file is disclosed, since the collection and analysis of information is done *dynamically* at run-time);

responsive to the acts of updating, analyzing information stored in the caching profile (as noted above, information collection and analyses are done dynamically); and

responsive to the act of analyzing, selecting a preferred caching algorithm from a plurality of caching algorithms (abstract, the analyzed information, or cache class attribute is used to select a replacement algorithm);

wherein the act of analyzing is performed by a predictive modeling engine (col. 8, lines 45 – 47, collection and analysis of information is done by operating system or software.

Abstract states “Class attributes may indicate a relative likelihood of future use.” These two teachings of Gaither read on the ‘predictive modeling engine’ limitation.).

4. With respect to claim 5, Gaither discloses a method for managing a cache, comprising the acts of:

responsive to arrival of a file at a cache, analyzing information stored in a caching profile by computing a plurality of metrics (col. 5 lines 7 – 8, classes are ranked in a hierarchy, this requires some basis for comparison, or metrics. See also col. 8, lines 2 – 9, measure of likelihood of future use is also taught); and

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responsive to a comparison of the metrics one with another, selecting preferred caching algorithm from a plurality of caching algorithms (col. 5, lines 14 – 15, also see above).

5. With respect to claim 6, the plurality of metrics includes clustering metrics (col. 13, line 4, non-uniform distribution implies clustering).

6. With respect to claim 7, the plurality of metrics include scattering metrics (col. 13, line 3, in a uniform distribution things are scattered evenly).

7. With respect to claim 9, the act of analyzing is performed by a predictive modeling engine (see rejection of claim 1 above).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arlitt *et al.* (US Patent No. 6,272,598, hereinafter “Arlitt”) in view of the Applicant’s admitted prior art.

Arlitt discloses a method for managing a cache, comprising the acts of:

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responsive to arrival of a file at a cache, analyzing information stored in a caching profile by computing a plurality of metrics (col. 5, lines 48 – 50); and

responsive to a comparison of the metrics one with another, selecting preferred caching algorithm from a plurality of caching algorithms (col. lines 35 – 47),

wherein the plurality of caching algorithms includes a least-used caching algorithm (col. 6, lines 4 – 5) and a least-recently-used caching algorithm (col. 5, lines 62 – 63).

However, Arlitt does not specifically disclose the use of a most-recently-used caching algorithm and a most-used caching algorithm. On the other hand, Applicant admitted that these two algorithms were known on pages 2 and 3 of the specification.

It would have been obvious to one of ordinary skill in the art, having the teachings of Arlitt and the admitted prior art before him at the time the invention was made, to use the additional replacement algorithm teachings of the admitted prior art in the dynamic cache management system of Arlitt, in order to increase the versatility of web caching system. Also note that Arlitt specifically discloses that other known cache replacement algorithms may also be used (col. 7, lines 28 – 29).

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Woo H. Choi whose telephone number is (703) 305-3845. The examiner can normally be reached on M-F, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (703) 305-3821. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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*whc/ML*

whc

July 14, 2003

*[Signature]*

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